

REMARKS

Claims 1-9 are pending in this application, all of which are rejected.

The Restriction Requirement

Pursuant to the restriction requirement, unelected Claims 10-37 are canceled herein.

The Objection to the Claims

Claims 1-19 are objected to because of the misspelling "plyalphaolefin" on line 2 of Claim 1. This informality is corrected by amendment herein.

The Rejection under 35 U.S.C. §112

Claim 5 is rejected under 35 U.S.C. §112 second paragraph. In particular, the Office Action states that it is not clear to which "liter" in "millimoles/liter" is applied. This rejection is respectfully traversed. It is a well established rule that "whether a claim is invalid for indefiniteness requires a determination whether those skilled in the art would understand what is claimed when the claim is read in light of the specification. See, *Morton International Inc. v. Cardinal Chemical Co.*, 28 USPQ2d 1190, 1194-1195 (Fed Cir. 1993). Referring now to the specification, page 9, lines 12 - 19 it is stated:

In general, the bridged metallocene procatalyst can be present in the reactor in an amount, expressed in terms of its transition metal content, of from about 0.0001 to about 0.02, preferably from about 0.0002 to about 0.015 and more preferably from about 0.00025 to about 0.01, millimoles/liter. Corresponding to these amounts of transition metal, the aluminoxane cocatalyst can be utilized in an amount of from about 0.01 to about 100, preferably from about 0.02 to about 75 and more preferably from about 0.025 to about 50, millimoles/liter.

One skilled in the art, upon reading claim 5 in light of the specification would be clearly apprized as to what is being claimed. Accordingly, reconsideration and withdrawal of the rejection of claim 5 under 35 U.S.C. §112, second paragraph is respectfully requested.

#### The Rejections under Prior Art

1. Claims 1, 6 and 9 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,064,797 (hereinafter, "Stricklen"). Stricklen discloses a process for producing polyolefins and polyolefin catalyst. The catalyst system includes aluminoxane and at least two different metallocenes, each having a different olefin polymerization termination rate constants in the presence of hydrogen.

However, claim 1 requires that: "... ligand ( $\text{Cp}^1\text{R}^1_{\text{m}}$ ) is different than ligand ( $\text{Cp}^2\text{R}^2_{\text{p}}$ ) and bridging group  $\text{R}^3$  contains

at least two bulky groups." Stricklen neither discloses nor suggests that the ligands must be different and that the bridging group must contain two bulky groups.

The concept of bulkiness of substituent groups is a recognized one in organic chemistry and cannot be ignored. Those skilled in the art understand that bulky groups encompass those substituent groups which, like phenyl groups or other groups of relatively large geometry such as tert-butyl groups, occupy considerably more three dimensional space than do methyl groups and similarly sized groups of relatively small geometry.

In contrast to this, Stricklen teaches at col. 7, lines 58-60 that bridging group R" is a C<sub>1</sub>-C<sub>4</sub> alkylene radical, a dialkyl germanium or silicone or alkyl phosphine or amine radical bridging two (C<sub>5</sub>R'm) rings. There is no disclosure or suggestion of bulky groups on the bridging group or, for that matter, that the bridging group contains two bulky groups. Accordingly, Stricklen neither discloses nor suggests the invention as defined by claim 1. Reconsideration and withdrawal of the rejection of claims 1, 6 and 9 under 35 U.S.C. §102(b) are respectfully requested.

2. Claims 2-4, 5, 7 and 8 are rejected under 35 U.S.C. §103(a) as being obvious over Stricklen. This rejection is respectfully traversed.

The Office Action states:

Stricklen does not disclose that alkyl groups in the bridging group R are cyclic (col. 7, lines 58-60), instead of generally alkyl. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Stricklen process by using bridging R groups having cyclic alkyl since it is expected that using any alkyl group would yield similar results.

Applicants respectfully disagree with the argument presented in the office action. First, claims 2-4, 5, 7 and 8 depend directly or indirectly from independent claim 1, which is submitted to be allowable over the Stricklen reference for the reasons stated above. Stricklen neither discloses nor suggests that the bridging group contains bulky groups. Therefore, cyclic groups as components of the bridging group are also neither disclosed nor suggested by Stricklen. Accordingly, claims 2-4, 5, 7 and 8 are also allowable.

Moreover, Applicants respectfully submit that the Examiner has provided no evidence that it would be expected that bridging groups having cyclic components as claimed are equivalent to the compounds disclosed by Stricklen. As

mentioned above, Stricklen neither discloses nor suggests that the bridging group contains bulky groups. Contrary to what is expressed in the Office Action, one skilled in the art would not expect a molecule with bulky substituent groups such as t-butyl, phenyl and the like, to behave chemically in the same manner as molecules with lower alkyl substituents like methyl or ethyl. And, as there is no disclosure or suggestion in Stricklen that the bridging group contain two bulky groups, there is certainly no disclosure or suggestion that the bridging group contain cyclic groups. Accordingly, Stricklen does not provide support for even a *prima facie* case for obviousness. Reconsideration and withdrawal of the rejection are respectfully requested.

#### The Double Patenting Rejection

Claims 1-9 are provisionally rejected under the judicially created doctrine of obviousness type double patenting over Claims 1-6, 9 and 10 of copending application No. 10/014,911.

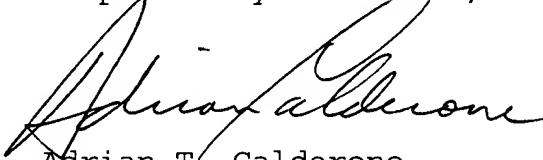
Applicants will consider filing a terminal disclaimer when this rejection is no longer provisional.

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Reply to the Office Action of March 9, 2004

**CONCLUSION**

For at least the reasons stated above, all of the pending claims are submitted to be patentable and in condition for allowance, the same being respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Adrian T. Calderone", is written over the typed name.

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